DOCUMENT RESUME

ED 190 172 JC 800 412

AUTHOR Lolley, John L.; Miller, Bob W.
TITLE A Comparative Study of the Use of Instructional Resources by Community Junior College Vocational-Technical Teachers as Related to the Number of Courses Completed in Higher Education.
PUB DATE [78]
NOTE 15p.

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Audiovisual Aids; College Faculty; *Educational Attainment; *Educational Media; Faculty Evaluation; *Faculty Promotion; Instructional Materials; Library Materials; Two Year Colleges; *Use Studies; Vocational Education; *Vocational Education Teachers
IDENTIFIERS *Tarrant County Junior College TX

ABSTRACT

In an effort to determine if traditional criteria for advancement in rank (i.e., additional university hours above the master's degree) should apply to vocational-technical instructors as well as to academic faculty, a study was conducted at Tarrant County Junior College to survey the use of 21 instructional resources by 138 technical instructors and correlate the use of these materials with the number of education courses completed by the instructors. The study was based on the assumption that extensive use of a variety of these resources would certify a teacher as having a command of instructional techniques and media. Major findings indicate that audio-visual materials received the highest use (86%) by the total population of instructors, followed by departmentally owned books (73%), personally owned books (72%), and manufacturer's literature (63%). While the instructors with more education did utilize a wider variety of materials than did those with less formal education, no significant linear relationship was found between materials used and the number of courses completed. The study report details methodology and analyzes findings for instructors classed by educational attainment. Data tables are provided. (JP)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED190172

A Comparative Study of the Use of Instructional Resources by Community Junior College Vocational-Technical Teachers as Related to the Number of Courses Completed in Higher Education

by

Dr. John L. Lolley
Director of Library Services
Tarrant County Junior College
South Campus
Fort Worth, Texas
76119

and

Dr. Bob W. Miller
Professor and Director
of
Community College Programs
North Texas State University
Denton, Texas
76203

JC 800 412

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

John L. Lolley

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Abstract

A controversial issue among community junior college educators concerns the criteria for advancement in rank. Most colleges require additional university hours above the Masters degree. While this method is acceptable to academic teachers, it is particularly sensitive to vocational-technical teachers.

Many vocational-technical teachers are recruited directly from business and industry rather than universities, and while they are typically well qualified in their subject specialty, they may have received little or no formal preparation for college classroom instruction. Important questions arise such as: Is subject competency and additional training in the subject field more beneficial to the vocational-technical teacher than courses in higher education? Do teachers with more courses in higher education perform more effectively in the classroom? While there is no standard criteria for evaluating the competencies of college teachers, a certain number of categories are generally agreed upon as being essential. One such category is concerned with the use or non use of instructional resources. The 138 instructors at South Campus, Tarrant County Junior College, were surveyed as to their use of the 21 instructional resources known to be available to all teachers to the campus. The results indicate that vocational-technical teachers utilize a wide wariety of instructional resources but there was little uniform or linear relationship, positive or negative, between such use and the number of courses in education completed.

The generally accepted pattern of preparation for academic teachers in the community junior college is the completion of at least a four year university degree and a Masters degree, usually in a subject area. Ideally, these teachers should also have taken courses in "the history of the two-year college and its place in higher education, modern learning theory, including the uses and limits of educational evaluation, testing, and measurements [and] . . . modern media and new methods of instruction!" [3, p. 99].

While university preparation is the generally accepted pattern for academic teachers in the two-year college, there is no clear-cut agreement as to what constitutes acceptable training for the vocational-technical teacher. Some feel that previous work experience is more valuable than formal courses in higher education. "Most vocational instructors will have a background of extensive work experience and on the job training. They will have little need for a 'regular' academic post-baccalaureate, M. A. or Ph. D. program. But what they will need are refresher and background courses germaine to their specialties; and some real help, preferably not from formal courses in pedogogy, in how to teach" [1, p. 444]. Reynolds feel that while it is desirable to have vocational-technical teachers with academic preparation and trade experience, "in those instances in which no person can be found who possesses both qualifications, higher priority is given to successful trade experience" [4, p. 38]. Wenrich echoes that somewhat antipedogogical stance. "If a choice must be made between occupational competence and competence in teaching, we would take the former and help the teacher develop the latter skills as soon as possible" [5, p. 284]. Others feel, that while it is certainly

necessary to be a subject specialist, vocational-technical teachers must also have the academic preparation associated with the classroom, that such competencies may be as important as subject competency: "(1) the command of a range of instructional techniques and familiarity with various media, (2) the ability to communicate effectively with students and colleagues, and (3) the skill to cope with widely varying educational capabilities and interest of students" [2, p. 28].

The issue of experience versus formal courses in higher education is central to the vocational-technical teacher since most community junior colleges require additional hours for advancement in rank and make little or no allowance for non-university training.

There has been little research to determine, if indeed, formal courses in higher education increase a vocational-technical teacher's competencies in these areas.

The following study concerns the relationship of vocational-technical teachers who complete university courses and one instructional competency, "the command of a range of instructional techniques and familiarity with various media."

The population for the study included the 56 full time and 82 part-time vocational-technical teachers of Tarrant County Junior College, South Campus, who held assignments during the investigative period. Data were gathered using a self reporting questionnaire. Responses were compared and tested for significant differences.

Methodology

A thorough search of the literature revealed no standardized survey instrument for evaluating the "range of instructional techniques and

familiarity with various media" of a particular instructor. In constructing the questionnaire for this study, a check list of 21 instructional resources known to be widely available to community college occupational instructors was developed. A basic assumption made was that of extensive use of a variety of these resources would certify a teacher as having a command of a range of instructional techniques and familiarity with various media.

The following method was utilized in establishing the amount of use of an instructional resource. First, the total number of courses taught by the occupational teachers in each classification was computed. This figure represented the total number of courses in which an instructional resource could have been used by the teachers in each classification. (The 56 full time teachers taught 153 courses and the 82 part-time teachers taught 126 courses.) The relative use of each kind of resource was then determined by dividing the total number of courses taught into the total number of courses in which the respondent reported the actual use of each kind of resources.

Use of Instructional Resources of All Kinds

Of the 281 vocational-technical courses taught during the period covered by the study, audio-visual materials were used in 247 or 88 percent. Audio-visual materials were described in the questionnaire as including "films, filmstrips, slides, cassettes, video tapes, etc., but not micro texts." This relatively high level of use of audio-visual materials contrasts with levels of use reported by some observers for community junior college instructors in general. Such high use by TCJC vocational-technical instructors, however, would agree with the facts (1) that for many of the vocational-technical courses no adequate textbook exists, and

(2) that many of the courses were originally designed as multi-mediated programs. Table I lists the different kinds of instructional resources ranked according to their level of use by all instructors in the population.

As a group, the instructors used a wide range of resources in their courses, including traditional library printed materials or materials that could be acquired in a library. Printed materials were used in at least 50 percent of the courses. For these courses, the printed materials included departmental books, 73 percent; personally owned books, 72 percent, manufacturers' literature other than service manuals, 63 percent; personally owned journals, 56 percent; manufacturer's service manuals, 52 percent; and association publications, 50 percent. However, the TCJC library, which either contained the same materials or could have acquired them, was used in only 37 percent of the courses.

Instructors made relatively little use of what might be described as "outside" or "off-campus" resources. These included: practitioners to speak to classes, 29 percent; field trips, 25 percent; student on-the-job training, 24 percent; students attending association meetings, 16 percent; and student interviews of practitioners in the field, 13 percent.

Insert Table I about here

The Use Of Instructional Resources By Instructors Classified According to the Number of Courses Completed In Higher Education

When instructors were classified by the number of courses in education completed (0 hours, 3-12 hours, and 15 or more hours) they were in close agreement in the use of all but seven instructional resources. These seven resources of non-agreement were: (1) personally owned books, (2) manufacturers' literature other than service manuals, (3) departmentally prepared syllabi, (4) self prepared syllabi, (5) manufacturers' service manuals, (6) government publications, and (7) student on-the-job training.

As shown in Table II, instructors who had taken 0 hours in higher education recorded the highest utilization of three instructional resources: Departmentally prepared syllabi, information from notes of previously taken courses, and programmed or individualized materials. This group of community college occupational teachers recorded the lowest use of ten instructional resources: textbooks, manuals or guides, self prepared syllabi, government publications, departmental journals, field trips, student interviews, practitioners or employees to speak to classes, students' attendance at association meetings, and library printed materials.

Instructors who had taken 3-12 hours recorded the highest use of four instructional resources: information from courses presently taking, personally owned books, student on-the-job training, and library printed materials. This group recorded the lowest use of six instructional resources: information from courses previously taken, departmentally prepared syllabi, manufacturers' service manuals, manufacturers' literature other than service

manuals, government publications, association publications, personal journals, departmental journals, audio-visual materials, field trips and student interviews. This group recorded the lowest use in five instructional resources: information from courses previously taken, programmed or individualized materials, personally owned books, departmentally owned books, and student on-the-job training.

Insert Table II about here

The study indicates that instructors who had taken 15 hours or more hours in higher education recorded the highest use of eleven instructional resources: audio visual or multi mediated materials, manufacturers' literature other than service manuals, association publications, departmentally owned journals, practitioners to speak to classes, governmental publications, field trips, textbooks, and manuals or guides. This group of occupational faculty recorded the lowest use of five instructional resources: departmentally owned books, personally owned books, programmed or individualized materials, student on-the-job training and information from courses presently taking.

When compared to the pattern of use of instructional resources by the total population there was little difference in the pattern of use of instructional resources by instructors classified by the number of courses in education completed; however the group with more education did utilize more of a variety of materials than the ones with less formal education.

The null hypothesis for this part of the study stated that when instructors were classified according to the number of courses in higher education completed, there would be no significant difference in the use of instructional resources. Table I indicates that the hypothesis was rejected at the .05 level of significance for only seven instructional resources: personally owned books, manufacturers' literature other than service manuals, departmentally prepared syllabi, self prepared syllabi, manufacturers' service manuals, government publications, and student on-the-job training.

Findings

When instructors were classified according to the number of courses in higher education completed, they differed significantly in their use of only seven of the twenty-one kinds of instructional resources listed in the questionnaire. A positive relationship was found in turn between the number of courses in education completed and the use of only two of these resources: (a) self prepared syllabi and (b) government publications. A positive tendency was also noted for the case of the following resources even though the instructors did not differ significantly in their use: (a) association publications, (b) departmental journals, (c) field trips, and (d) textbook manuals or guides. A near significant negative relationship was found in the case of programmed or individualized materials. It would appear accordingly that, in general, while instructors grouped according to the number of courses in education completed differed significantly in the use of one-third of the kinds of instructional resources, there was little uniform or linear relationship, positive or negative, between such use or the number of courses in education completed with the expection of the three types of resources noted.

TABLE I

USE OF INSTRUCTIONAL RESOURCES BY TOTAL POPULATION OF VOCATIONAL-TECHNICAL INSTRUCTORS

Rank	Instructional Resources	Number of Courses Taught	Number of Courses in Which Resource Used	Per Cent
1	Audio-visual materials	281	243	86
2	Departmentally owned books	281	201	73
3	Personally owned books	281	201	72
4	Manufacturers' literature other than service manuals	281	178	63
5	Information from notes of previously taken courses	281	176	63
6	Departmentally prepared syllabi	281	176	58
7	Personally owned journals	281	156	56
8	Self-prepared syllabi	281	150	53
9	Manufacturers' service manuals	281	145	52
10	Association publications	281	141	50
11	Programmed or individualized materials	281	127	45

TABLE I--Continued

Rank	Instructional Resources	Number of Courses Taught	Number of Courses in Which Resource Used	Per Cent
12	Library printed materials	281	105	37
13	Departmentally owned journals	281	92	33
14	Practitioners or employers to speak to classes	281	82	29
15	Government publications	281	80	28
16	Field trips	281	70	25
17	Student on-the-job training	281	67	24
18	Textbook, manuals or guides	281	51	18
19	Students' attendance at association meetings	281	45	16
20	Information from courses presently taking	281	39	14
21	Student interviews	281	36	13

TABLE II

USE OF INSTRUCTIONAL RESOURCES BY INSTRUCTORS CLASSIFIED ACCORDING TO THE NUMBER OF COURSES COMPLETED IN HIGHER EDUCATION

Number of Course Hours Completed	0 Hours		3-12 Hours		15 or More Hours		X^2 Value
Number of Courses Taught	93		81		107		
Number of Courses Instructional Resource Used	No.	%	No.	%	No.	%	
Instructional Resources Listed By Rank Order of Use By Total Population							
1. Audio-visual materials	77	83	55	68	97	91	4.76
2. Departmentally owned books	71	76	63	78	71	66	4.45
3. Personally owned books	71	76	64	79	66	62	7.25
4. Manufacturers' literature other than service manuals	59	63	44	54	75	70	6.40
5. Information from notes of previously taken courses	61	66	45	56	68	64	3.55
6. Departmentally prepared syllabi	62	67	42	51	57	53	6.79
7. Personally owned journals	50	54	44	54	62	58	0.32
8. Self prepared syllabi	41	44	41	51	68	64	8.47
9. Manufacturers' service manual	47	51	34	42	64	60	6.51
10. Association publications	42	45	40	49	59	55	1.39
11. Programmed or individualized materials	50	54	35	43	42	39	5.59
12. Library printed materials	30	32	33	41	42	39	1.10
13. Departmentally owned journals	25	27	27	33	37	35	1.12
14. Practitioners or employers to speak to classes	22	24	27	33	35	33	1.15

TABLE II--Continued

Number of Course Hours Completed	0 Hours		3-12 Hours		15 or More Hours		X^2 Value
Number of Courses Taught	93		81		107		
Number of Courses Instructional Resource Used	No.	%	No.	%	No.	%	
15. Government publications	18	19	24	30	38	36	7.32
16. Field trips	17	18	21	26	32	30	3.31
17. Student on-the-job training	22	24	27	33	18	17	6.92
18. Textbooks, manuals or guides	11	12	17	20	23	21	3.66
19. Students' attendance of association meetings	10	11	17	20	18	17	3.71
20. Information from courses presently taking	12	13	15	19	12	11	2.86
21. Student interviews	7	8	17	21	17	16	3.36

(Critical value for accepting the null hypotheses at the .05 level of significance at 2 df is 5.99)

REFERENCES

1. Garrison, Roger H., The Junior College Teacher--A New Breed? in in Perspectives on the Community Junior College, edited by William K. Olgivie, New York, Appleton-Century-Crofts, 1971.

2. Gordon, Shirley B. and Raymond P. Whitfield, "A Formula for Teacher Preparation," Junior College Journal, XXXVII(May, 1967), 26-28.

3. Medsker, Leland and Dale Twilley, Breaking the Access Barriers; A Profile of Two Year Colleges, New York, McGraw-Hill, 1971.

4. Reynolds, James W., The Comprehensive Junior College Curriculum, Berkeley, McCutchen Publishing Corporation, 1969.

5. Wenrich, Ralph C. and J. William Wenrich, Leadership in Administration of Vocational and Technical Education, Columbus, Charles E. Merrill, 1974.

AUG 29 1980

UNIVERSITY OF CALIFORNIA

ERIC® CLEARINGHOUSE FOR JUNIOR COLLEGES
96 POWELL LIBRARY BUILDING
LOS ANGELES, CALIFORNIA 90024
EE 36